

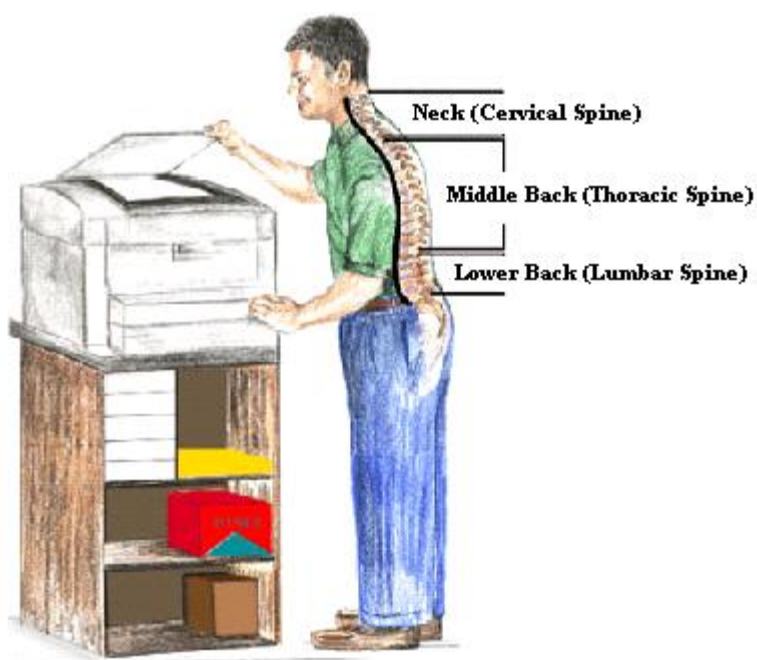
Maintaining a Healthy Back

The muscles in the back are unlike many other muscles in your body— they are almost always in use. They hold your torso in an upright position throughout your day. They assist you every time you pick something up, whether it's a pen or a concrete block. They support posture while you sit in your chair, and they even work at night when you sleep. In order for you to understand what is good posture and what is bad posture— take a look at how your back is designed:

Three Curves of Your Back:

Your back is composed of three natural curves that form an S-shape. When your three natural curves are properly aligned, your ears, shoulders, and hips are in a straight line. Without support from strong, flexible muscles, your back loses its three natural curves. Poor posture can lead to pain and serious injury.

When you use good posture, your back is aligned in three natural curves supported by strong, flexible muscles. Good posture helps prevent back strain and pain.



Do you work in—"NEUTRAL SPINE position"? Neutral spine is a term used when your back and, therefore, your spinal column, is in its natural, neutral posture.

Three Natural Curves:

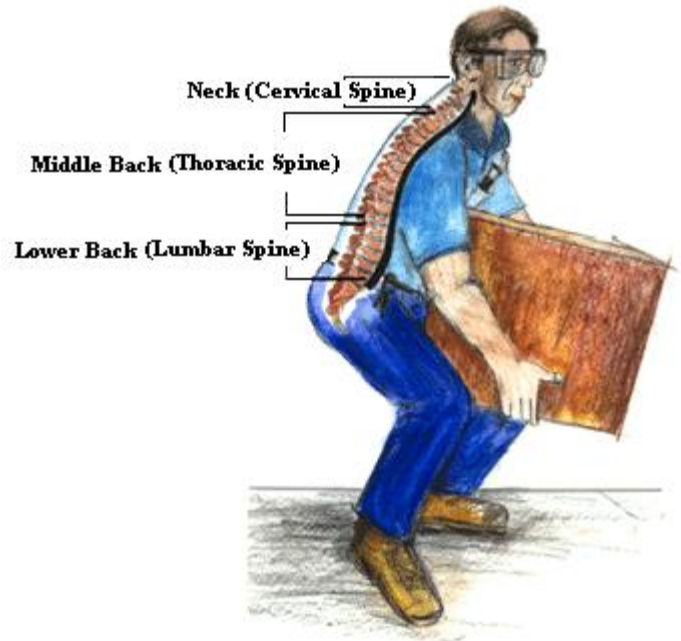
In order to assure the spine is working efficiently, we must keep the bones in the best alignment. Otherwise, the stress and forces are magnified— ligaments will be overstretched and muscles fatigued— causing pain and possible injury. In any activity, these 3 curves should be maintained— but not increased. The head should be above the shoulders so that the ear is in-line with the top of the shoulder. The top of the shoulder should be over the hips.

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Lifting with Proper Posture

Lifting is strenuous—it requires proper training and technique. By lifting with your large, strong leg muscles instead of the small muscles of the back, you can prevent back injuries and reduce low back pain. There are five steps to follow when lifting an object:

1. **GET CLOSE TO THE LOAD** Get as close to the load as possible— as if you're hugging the object. Having the object close to your body put less force on your low back.
2. **MAINTAIN YOUR CURVES.** Keep yourself in an upright position while squatting to pick up
3. **TIGHTEN YOUR STOMACH MUSCLES** Tightening the stomach helps support the spine. *Don't hold your breath while tightening the muscles.*
4. **LIFT WITH YOUR LEGS** Your legs are the strongest muscles in your body— so use them.
5. **PIVOT DON'T TWIST** Turn with your feet, not your back. It isn't built for twisting from side to side.



Large or Heavy Loads.

If a load is too heavy to lift alone, ask for help. Pick one person to coach the lift — this way you lift and lower at the same time.

Overhead Loads. If a load is above your shoulders, use a step stool to elevate yourself until the load is at least chest level— preferably waist height. Pull the object close to your body and then lift. Remember to maintain your curves — use your arms and legs to do the work.

*The information provided is not intended as a substitute for medical professional help or advice but is to be used only as an aid in understanding how to reduce back pain and neck pain. A physician should always be consulted for back pain or any health problem.

Some portions adapted from: Office of Research Services, Division of Safety, National Institutes of Health